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Benjamin Lee, M. D.

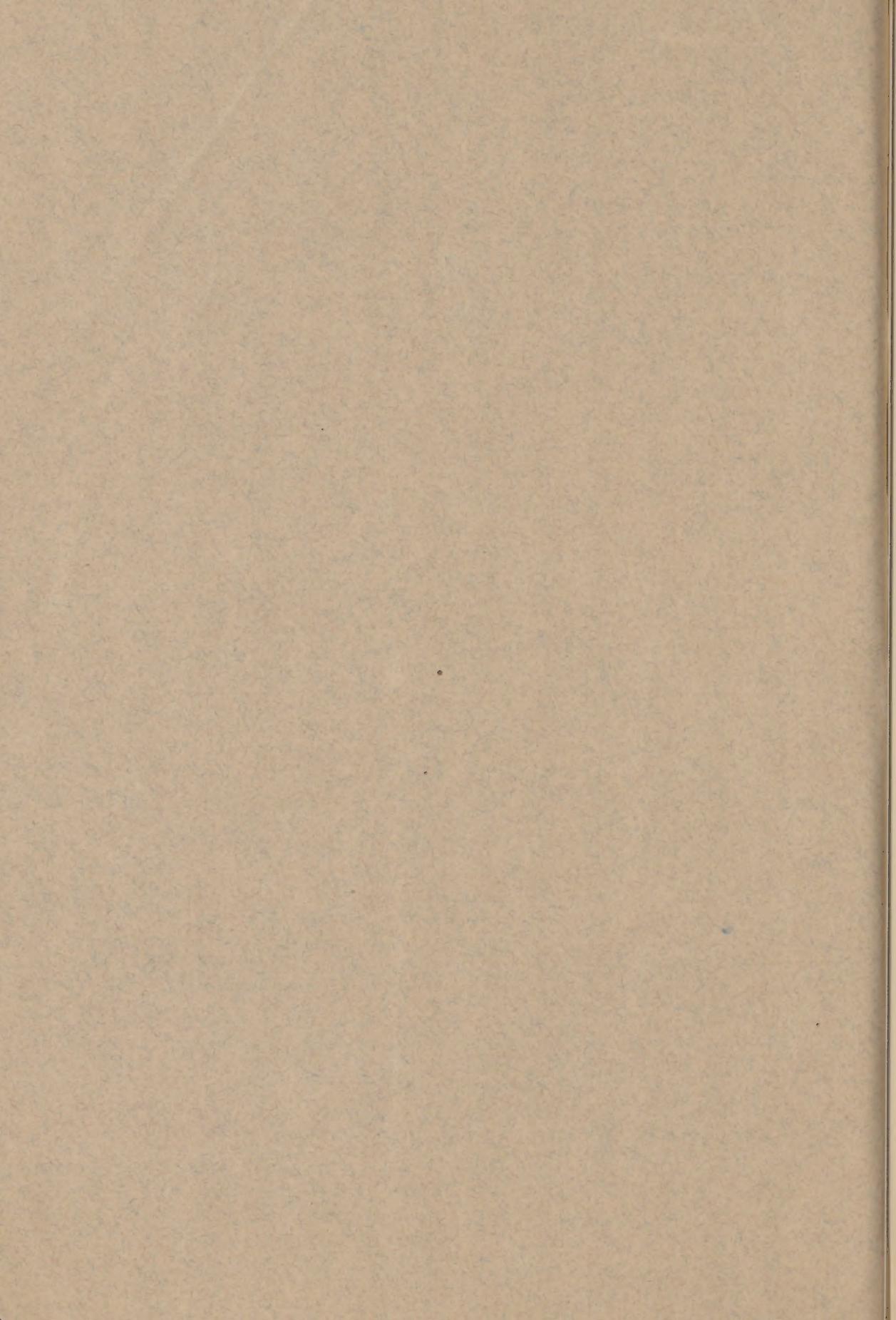
FACTS IN REGARD
TO
THE SWEDISH MOVEMENT-CURE.

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FACTS IN REGARD TO THE SWEDISH MOVEMENT-CURE.

IT is well known to all who have read the history of medicine that the Eastern populations of the ancient world employed movements as a curative means, and that the Greeks and Romans, later, extensively applied them as medical agencies, but that with the decay of those peoples their excellent therapeutics were forgotten. If any fault can be found with their modes of exercise, it is that they looked more to the simple development of the muscles than to the regulation of the treatment in accordance with physiological laws. Still, we must confess that the *agostics* of the Greeks were of value, and have furnished a good basis for the further development of the system.

Although the people of Europe subsequently employed remedial movements, the practice degenerated still more into mere muscle-culture and military drill.

During after-ages medical science passed through many variations, one pretender after another lauding his particular plan which proposed to cure every ailment of the human body. Most of them directed their experiments to the chemical processes of the system, forgetful of the fact that vital phenomena are complex and not confined to one form of force alone.

To a Swede, Peter Henry Ling (1776-1839), is due the honor of having first practically recognized the truth that the movements of the body were based upon physiological laws and produced physiological effects. He considered that inas-

much as vital phenomena were threefold, —the dynamical (manifestations of the mind and will and moral and intellectual powers), the chemical (assimilation, secretion, etc.), and the mechanical (respiration, mastication, circulation, etc.),—the means to modify them ought to include more than the mere chemical agencies. For that reason he devoted himself to the study of the mechanical, not forgetting, however, the dynamical and chemical agencies.

“As our organization,” he says, “cannot be complete without the union and harmony of these three orders of phenomena, it follows that this harmony must be health, and an inharmonious relation between them must constitute disease.

“When this harmony is deranged, in order to re-establish it we should endeavor to increase the vital activity of those organs whose functions have a relation to that order of phenomena whose manifestations are decreased or weakened.”

Entertaining these physiological views, and fully acquainted with the mechanical treatment of the Greeks and Romans, he considered a knowledge of anatomy necessary for the gymnast, as his own words will show. “Anatomy,” he says, “that sacred genesis which shows us the masterpiece of the Creator, and which teaches us at once how little and how great man is, ought to be the constant study of the gymnast. But we ought not to consider the organs of the body as the lifeless forms of a mechanical mass, but as the living,

active instruments of the soul which animates the body in every part."

Ling never acknowledged a gymnastic movement to be beneficial until he was able to give an exact account of its effect.

For that reason he held anatomy and physiology as the basis of curative gymnastics, but did not consider an acquaintance with those and other natural sciences sufficient for the gymnast, whose aim should be the elevation of man both in his corporeal and his mental nature. To know the effects of movements upon both the physical and the psychological condition of man was necessary, and this could only be obtained by an exact study of the human being as a whole, on the one hand, and by an analysis of the details of his nature on the other.

After a long period of study and patient labor, Ling succeeded at last in making his new ideas recognized, and the first "Institution for Educational, Military, and Medical Gymnastics" was established in Stockholm at the expense of the Swedish nation. Before he died he had the satisfaction of seeing his mode of treatment enthusiastically appreciated by Sweden and introduced into other countries in Europe.

In accordance with his views, it was enacted by the Swedish Diet (Congress) that candidates for graduation in the Movement-Cure should be examined in anatomy, physiology, hygiene, the science of human mechanics, pathology, diagnosis, and the principles of the Movement-Cure, and that no one should be accepted as a pupil without passing the "Examination of Maturity," which requires a course of seven years' study, and includes higher mathematics, logarithms, Latin (five years), French, German, English or Greek, ancient and modern history, physics, and chemistry. [I desire to call especial attention to the qualifications demanded of a student of the Movement-Cure in Sweden, and insisted on in good faith, as compared with those required of a student of medicine in this country.—B. L.]

Since 1813, when the Gymnastic Central Institution was first opened, there have been graduates each year, besides medical candidates and physicians from Sweden and foreign countries who study only such branches as are a specialty of the Movement-Cure.

Leaving this short history of the devel-

opment of the Movement-Cure, I now proceed to define its principles somewhat in detail.

Physical life is dependent on certain distinct processes, such as digestion, respiration, circulation, etc. These processes of life are connected with certain organs; these organs are formed of tissues, and these tissues of cells. Perfect digestion, respiration, circulation, and nervous action take place as long as these organs, tissues, and cells are normal or healthy, and these organs remain healthy as long as nutrition is normal. Hence health is normal nutrition. But if health is normal nutrition, then must abnormal nutrition be the state which is called disease. Abnormal nutrition may decrease until it ceases, when death follows. Hence death is the cessation of nutrition.

With these ideas as a basis, let us try to understand the state of the body in disease. If disease is an abnormal nutrition, this must be owing to the existence of some derangement in the cells or in the tissues, even though it may escape detection.

As anatomy and physiology teach us the condition and the vital functions of our body in a state of health, so do pathological anatomy and pathology teach us the state of the system in disease. That these morbid changes first appear in the cells is now a generally accepted idea; and the results of long practice of the Movement-Cure have shown that if the cells are looked upon as either relaxed or contracted, and the movements directed according to one or the other of these views, many diseased conditions in which chemical treatment alone had been found powerless have been cured or prevented, the chemical and dynamical agencies having been taken into proper consideration. I mentioned before that, according to Ling, health was the harmonious union of the three vital phenomena,—the dynamical, the chemical, and the mechanical. Is this opposed to the opinion that health is normal nutrition? Not at all; for is not normal nutrition the co-operation of the dynamical (nervous power), mechanical (circulation), and chemical (nutritive exchange) phenomena? Hence it is evident that in a diseased state of the system we must try not only to correct that one of these phenomena which gives evidence of disturbance, but to restore all the organs whose functions have a relation to that order of

phenomena whose manifestations are either intensified or diminished. The question then arises, What means does the Movement-Cure employ to promote a better nutrition and improve the condition of the cells?

Substances introduced into the body for its nutrition quickly make their way to its most superficial portions, and, while the chemical agencies play an important part in preparing the food for assimilation, the mechanical agencies are not less essential in conveying it to its destination. Are the vessels, in fact, anything but mechanical tubes for the passage of the fluids?

We see plainly that noxious influences of a physical character act from the surface of the body towards the centre. Cold is an external, injurious influence of the air which primarily affects the vessels of the skin and the pituitary membrane, but is very soon transferred to the lungs, stomach, or other internal organs. A heavy blow on the chest or head may cause unconsciousness, syncope, collapse, and even death. Whereas if the effect of a mechanical impression did not extend to distant parts, only that which immediately received the impression should be injured or destroyed.

All that we find in our organism, whether as a part of it or as foreign matter, must at a given moment of time have a fixed volume. Every displacement of any one part, therefore, implies a corresponding change in neighboring parts, propagated to the remotest parts, according to the extent of the primary action. Every little change of attitude, or of the relation of the members of the body to one another,—an external pressure upon a nerve, vein, muscle, or tendon,—must necessarily produce a displacement of neighboring parts and propagate the action more or less strongly into sensitive organs in the proportion of their distance and its intensity, the effect gradually diminishing, like wave-circles on the surface of water.

In treatment by the Movement-Cure the position of the patient is the first thing to be observed. The positions most used are standing, kneeling, sitting, lying, half-lying, etc., and in every one of them the trunk or the extremities can be moved in different directions. If we consider each one of these attitudes, we shall find that we are able to place the different parts of the body in an extended, contracted,

or passive position. We have many opportunities in daily life to observe the effect of a position. For instance, when the hands are red and heated, if we stretch them upward we find the extended veins emptied and the skin growing pale. The importance of position in procuring sleep is well known. If we further observe the attitude of invalids, we shall find that they, without knowledge of the physiological effects of the positions, always hold and carry themselves so as to get partial relief from pain.

The various kinds of Movements, which we call *Passive*, *Active*, and *Duplicated*, can be administered to the body in every one of the above positions, and hence it is evident that the variations are numerous, and that each may have its special curative effect.

By *Passive Movements* I mean here the exertion of a compressing or extending force from an external source upon the organs of a human body, such as kneading, clapping, fanning, vibrations, and pressure on nerves. The effect of these is to cause the stagnant contents of the vessels to move forward, giving place for a new supply of blood, since the valves of the veins prevent the removed blood from flowing back. The new supply of blood increases chemical action, and the immediate effect is to remove pain, soreness, swelling, redness, and heat, and to equalize the circulation and soothe irritation. These effects are produced without any exertion on the part of the patient, who, on the contrary, receives from the operation a strengthening influence diffused throughout the nervous system, giving new vigor to all the organic manifestations.

It is quite possible to observe the immediate effect of a passive movement by stroking a visible venous trunk either against or in the direction of its current. The first action prevents the onward flow, and the vein becomes very prominent. The second accelerates the blood towards the heart, and the vein dwindles away. The tissues of the body being elastic, it is evident that internal organs can be subjected to the same operation.

If a movement is made by the will and force of the patient, it is called an *active* movement; and if the patient has to overcome the resistance of one or several assistants, it is called a *duplicated* movement.

Now, if we analyze a muscular movement

we shall find that three different processes—mechanical, physiological, and chemical—are its evident result. In active and duplicated movements the muscles are alternately contracted and relaxed, and the veins and lymphatic vessels which lie beneath the swelling muscle are compressed. Thus, during contraction the blood is forced from one valve to another towards the heart. When the muscles are relaxed the vessels refill, and are anew compressed by the frequently-recurring pressure of the muscles upon their trunks, thus forcing the blood forward.

Under the use of properly-directed movements the patient is instructed to perform deep inspirations during the muscular contractions, with proportionate expirations. This pump-like motion of the respiratory muscles draws the blood from the veins into the chest in order to supply the vacuum thus created.

But it is not only the muscles which experience the benefit of movements. In nearly every muscular movement some joint is moved, and the extension or compression of its ligaments and cartilages and membranes must provoke a better circulation in those parts. It can be proven by dissection that in those who perform bodily work not only are the muscles more voluminous, but the bones and tendons are more fully developed, than in inactive persons. Exercise, therefore, provokes circulation in all parts of the body which are put in motion. Further, as every muscular movement is performed by the will, it must be evident that the nerves have some share in movements, as the impulse to move a part of our body must be carried from the brain through the spinal cord and the motor nerves to the extremities and surface. Hence muscular movement at the same time that it promotes circulation also provokes nervous flow. This increased nervous action and chemical exchange are only in the motor nerves; but I think that muscular movement can be shown to have also an indirect influence upon the sympathetic and the sensory nerves. A muscular movement has also its chemical effect, as is well proven by physiological experiments. When a muscle contracts, heat is produced; and this heat has actually been measured to the extent of several degrees. If muscular exercise is continued for a considerable length of time, the person himself becomes conscious of an in-

creased temperature, and as a final result perspiration sets in. This heat is the sequel of increased chemical exchanges in parts which are in motion. The muscular movement promoting blood-circulation produces an exchange of the solids and of the fluids of the body, and carbonic acid, lactic acid, etc., are formed, which, if accumulated in the muscle, produce the state which is called weariness. This weariness will disappear, however, when the above-mentioned products are absorbed by the vessels.

The materials thus consumed by exercise must be restored to the system, and the arterial blood, forced forward by the contraction of the walls of the heart, by the contractility of the arteries, and by the peculiar action of the capillary vessels, furnishes this needed supply. The amount of the blood cannot be diminished if the system is to remain healthy. Thus a new supply of nutriment for the blood is required from the digestive organs. This is absorbed by means of the lacteals; whence an increased appetite is the result of movement, as we knew by experience before physiological laws were written.

The chyle is not fit for nutrition, and for that reason it passes through glands where the matter is partially changed before it is emptied into the vena cava to mix with blood on its way to the heart, and still farther on to the lungs, in order to become oxygenated by contact with the air. Hence another effect of muscular movement is increased respiration from reflex action, produced by the impression of venous blood upon the nerves in the lungs. The exchanged noxious matters must be thrown out of the system, and this is partially done by the lungs, which secrete carbonic acid and water. Other noxious matters are separated by the kidneys and the skin. Thus muscular action produces increased activity in all the organs which are concerned in the great process of nutrition. *Duplicated Movements* are the most important, and their curative effect is dependent on *localization*, on the *amount of force* which is used, and on the *time* during which the movement is made. They are *concentric* or *eccentric* according as the muscles are contracted or extended during the movement. The effect will be, in the one case to relieve organs suffering from congestion by sending the surplus blood away; in the other, to sup-

ply the part acted on with new nutritive blood. The prescription of either of these forms of movements is dependent on the condition of the cells.

By *localization* the effect of a movement is confined to a particular region, or to a separate organ of the body, while the other parts are at rest.

By a judiciously adapted resistance the strength of the patient is equalized with that of the assistant. The patient is pleased to find power of motion where it was previously impossible, and the energies of the system are aroused and encouraged by never allowing the patient to feel that his force is not sufficient to overcome that of the assistant.

The time which a movement occupies, which we designate the *rhythm*, is dependent on the individuality of the patient. The duplicated movements are in general slower than active exercises, giving all the fibrils or elements of the muscle time to participate.

Considering the few hints thus given in regard to the direction of movements according to physiological laws, it will be easily understood that no one without a special education is fitted to give, still less able to prescribe, movements for the cure of diseases, as is so often attempted in this country. No wonder that so many have tried so-called Swedish Movements without benefit, when inexperienced and uneducated manipulators are sent round to rub according to their own crude ideas. It is an indisputable fact that Movements and Massage, which are most important means for regulating the blood-circulation, if applied in opposition to physiological laws will attract the blood to a part already congested or inflamed, and the evil will be aggravated just as surely as if a wrong medicine had been administered.

Though the system is called Movement-Cure, restraint from active exercise is very often necessary. [This brief sentence, I beg leave to remark, contains in a nutshell the *rationale* of that system of treatment which has been fashionable in this city for the past few years under the misleading title of Rest-Cure. The *Rest-Cure* is, in point of fact, the *Movement-Cure*, the rest being merely a more or less necessary accompaniment. Supineness and stuffing are not curative in themselves or by themselves. Movements and Massage are; and Movements and Massage are an essen-

tial feature of the Rest-Cure.—B. L.] Great regularity in regard to the treatment, as well as strict attention to the prescribed diet and hygienic rules, is necessary in order to receive the full benefit of the cure. This mode of treatment has a great advantage over other therapeutic methods, from the fact that the patients are always benefited, even if it is impossible to make a complete cure, because the treatment removes pain, congestion, and local swelling, invigorates the muscles and the nerves, causes the lungs to act more freely, regulates the digestion and the blood-circulation, and, in a word, stimulates all the organs to perform their functions without introducing any irritating or toxic agent into the system. What is gained is obtained in nature's own way, by directing the fluids of the body through their natural channels with natural celerity. It is for this reason that disturbed capillary action, and all resulting disorders of the circulation, such as cold hands and feet, rheumatic affections, with their sequelæ of weakness and lameness, hemorrhoidal tumors, disorders of menstruation, and all the different symptoms of disordered digestion (dyspepsia, constipation, flatulence), are among the complaints which most easily yield to this mode of treatment, and that in them a favorable prognosis can always be risked.

In regard to curvature of the spine, if it be dependent upon weakness of the muscles, which are unable to keep the spinal column erect, it is always possible to correct the curvature in from two to six months if the treatment begins before any change has taken place in the vertebræ. In the latter case the Movements will erect the spine partially and stop the further development of the disease by restoring the patient's general health. It must be the physician's first endeavor to attend to the general health and the causes which have brought on the curvature. That scientific movements must be a powerful means of restoration in this class of cases must be evident to every one, since, whether muscles be on the extremities or on the trunk, exercise must have the same effect on them.

In convalescence after fevers and other acute diseases the Swedish Movements have been of great benefit in restoring the functions of the system. It must be observed that it is not the primitive disease, but the sequel of it, which is treated in such instances.

Neither excessive weakness nor great age forbids the treatment, as the passive movements are administered without any exertion on the part of the patient. During the seventy years' history of this practice in Europe it has been demonstrated that the aged, by using the treatment a short time once a year, may be rendered to a great extent free from the ailments so common during the latter part of human life.

A cure in ordinary cases of functional disturbance is attained by a treatment of from one to three months' duration, but in higher degrees of curvature of the spine (yet curable), and in constitutional diseases, a course of from four to six months, or longer, is necessary.

The treatment should be administered every day (Sundays excepted). The time required daily is from one to two hours, according to the character of the disease and the condition of the patient.

When we consider that the Movement-Cure affects the most important functions, such as absorption, assimilation, and nutrition, and that these never cease to act as long as the system is in health, it will be easily understood why treatment every day is necessary if good results are to be obtained. Cases occur, indeed, where treatment several times a day would have a much better effect.

I have so far treated of the effect of movement in a general way. Allow me now, by way of example, to contrast the treatment of that most prevalent disease, constipation, by Movements and by medication.

By constipation I mean here that state of the body in which the evacuations are less frequent or less in quantity than in a perfect state of health, and the discharges generally hard and procured with difficulty. The symptoms are, further, variable appetite, acid stomach, headache, cold hands and feet, and, in protracted cases, when large faecal masses are collected in the rectum, pain in the sciatic nerve and difficulty in urinating.

The causes are indigestible food, sedentary habits, the protracted use of astringent, diuretic, and purgative medicines, mental anxiety, chlorosis, diseases of the spinal cord, weakness of the muscular coat of the intestines and of the abdominal muscles.

The liver is torpid and congested. The

alimentary mucous membrane is to some extent congested, whence results deficiency of the required secretions. Now, if the due amount of blood can be brought back to the tissues and the other injurious causes removed, the constipation must yield. I desire to show that the Movement-Cure operates against all these causes.

As before mentioned, no medicines are used, whence this cause of disturbance is avoided. Proper diet is prescribed, and the Movements break up sedentary habits; mental excitement is diminished by directing the treatment so as to draw the nervous fund from the brain and rouse to action the lower portion of the spinal cord by exercising the muscles which get their nervous supply from this part. The liver and the accumulation of faecal matter are directly operated on by kneading, vibration, and circular stroking (following the course of the colon), which movement removes congestion and promotes faecal discharges by exciting muscular contractility in the alimentary tube. The respiratory organs are operated on for better oxidation of the blood, which, further, ought to be diverted to the extremities for a wholesome distribution of the circulation. The most obstinate case of constipation rarely fails to yield to a course of this kind persisted in for a few weeks.

Let us now consider the effect of medication in this condition. The drugs introduced into the alimentary canal irritate its nerves, as every substance will which does not consist simply of digestible food. The homogeneous contents of the intestinal tube are mixed with the drug, and the offended absorbent vessels thereupon refuse to perform their functions; hence absorption and nutrition are diminished.

Some portion of the toxic agent is absorbed into the blood, but, passing through the liver, the greater part of it is mixed with serum drawn from the blood, thus enfeebling the nutritive supply of the body, and then returned to the canal.

The mass in the alimentary tube is now acted upon by the emunctories with great power as the nerves are further irritated, and, only partly digested, is forced out of the tube, nature's only way to escape from impending harm.

It is true the alimentary tube has been emptied for the time by directing the remedy against the most prominent symptoms, as medicine in general is directed; but we

see plainly that nothing has been done to remedy the true cause of constipation, and in a very short time after the operation of the purgative the difficulty exists in a greater degree than before.

In the unpromising field of cardiac disease the Swedish Movements have effected some of their most surprising results. The following brief explanation may convey to the profession an idea of the treatment in this class of cases, and the mode in which it is beneficial.

Diseases affecting the heart we naturally divide into two classes, nervous and organic. The nervous affections of the heart are mostly connected with other derangements of the system, as asthenia, chlorosis, diseases of the digestive organs, and pelvic disorders, and are more or less curable in accordance with the curability of the primary cause.

The organic diseases are of quite another character, and though most of them, if they have existed a long time, are incurable, still even in such cases it is possible to give the suffering invalid great relief.

The most common are diseases of the valves, hypertrophy, atrophy, and fatty degeneration. For our present purpose we may consider simply disease of the valves between the left auricle and ventricle, as being the most common. Whether insufficiency or stenosis, the symptoms, as well as the treatment, are very much alike. In insufficiency of the mitral valve the blood, which ought to be squeezed out of the auricle, partly returns, and in stenosis the heart has not power enough to force the blood out, and a greater or less quantity remains in the cavity. In either case, therefore, the circulation is interfered with in much the same way, and stagnation of blood in the lungs, with shortness of breath, heart-palpitations, and a diminished quantity of blood in the arteries, is the result. The symptoms of the last are principally observed in parts distant from the heart, whence cold hands and feet. To correct this, the heart increases its activity, and this extra work may go on for a long time, the one fault correcting the other, before it is observed by the individual. But at last, as the heart is a muscle and obeys the general law of muscular tissue that too much exercise is injurious, the active fibres become over-worked and enfeebled, and the symptoms

grow worse, with evidences of stagnation in the large venous circulation, as visible in the bluish complexion.

The functions of the organs nearest to the heart, as the liver, spleen, stomach, and kidneys, gradually become disturbed, and the patient is finally subjected to intense suffering from the accumulation of water in the tissues.

It will naturally be asked, How is it possible to help these sufferers by movements, when even so slight an exercise as walking only increases their discomfort? I answer, we must distinguish sharply between scientific movements and all other forms of exercise. As before observed, the heart endeavors by increased activity to distribute the blood through the system. This gives us a hint for treatment. We must diminish the irritation of the heart arising from the pressure of neighboring parts, and divert the blood to the different organs and distant parts of the body, thus diminishing its work and hence its tendency to abnormal nutrition and hypertrophy.

In the first place, irritation is diminished by keeping the spinal column erect by the due development of its muscles, thus expanding the chest and affording the heart all possible room.

Duplicated movements in attitudes of rest increase circulation, as well in the veins as in the arteries, in parts which are put in motion. The extremities are cold. Exercise of their muscles will therefore be useful. But if, in consequence of the weakness of the patient, these movements are unsuitable, rotations of the joints may be employed to increase the arterial circulation, and upward stroking of the extremities to accelerate the venous flow.

Vibration, kneading, and fulling aid both the circulatory systems. The circulation through the lungs may be assisted by respiratory movements, in connection with clapping and light vibration upon the chest. Passive applications over the abdominal organs will have a good effect in promoting circulation and absorption. The heart itself may be operated on by light clapping and vibration upon the chest, and its movements may be regulated by direct pressure upon either the vagus or the sympathetic nerve.

Whatever the form of disease, whether the power of the heart is diminished or in-

creased, the treatment in all cases ought to be, and unquestionably may be, so administered as to aid the circulation without exciting palpitation or stimulating the contractions of the heart.

In the treatment of patients with heart diseases, ill-instructed manipulators have inflicted much injury by using powerful active movements, and have thus brought the system into disrepute.

I mention this because I know how freely young men, and even children, in this country use gymnastic exercises without previous examination by a physician able to tell them the danger of strong active movements of the arms or trunk if they are afflicted with heart disease. Such cases are in Sweden sent to Movement-Cure institutions, and their records show many instances in which skilled diagnosis had pronounced the disease to be organic, and yet it subsequently appeared that the symptoms arose from weakness of the heart, or of some part of it, as they disappeared under the use of suitable movements.

During the year that I have been in this country I have been struck with the fact that so many sudden deaths occur from heart disease and apoplexy; but, knowing as I now do how gymnastic education is neglected or misapplied in the schools, and, further, having had opportunity to observe how narrow the chest is in most Americans, and how both men and women walk with the chest contracted and the back bowed, either from weakness or from habit, I no longer wonder. The most important organs in our body are thus kept under constant pressure. To prevent this it would seem to be high time to employ systematic movements, as well in public as in private schools, and thus complete education according to the idea of the great Plato. "A good education," he affirms, "is that which assures to the body all the beauty, all the perfection, of which it is capable."

"To secure this beauty, it is only necessary that the body should be developed with perfect symmetry from the earliest infancy.

"If exercise does not keep pace with the growth of the body, it becomes subject to I know not how many infirmities."

Pliny remarks, "The mind is stimulated by movements of the body," and Hoffman, that "we cannot perfect the art of healing till we learn to apply mechanics and hydraulics in medicine."

SOME TABULAR RESULTS OF THE MOVEMENT-CURE.

Many members of this Society will remember having seen in Machinery Hall, at the Centennial Exhibition, a very interesting exhibit of apparatus intended for administering the Swedish movements. The table which follows is an abstract from the report to the National Board of Health, at Stockholm, of the Medico-Mechanical Institute of Gothenburg, Sweden, in which similar apparatus is in use. It covers a period of five years, from 1867 to 1872:

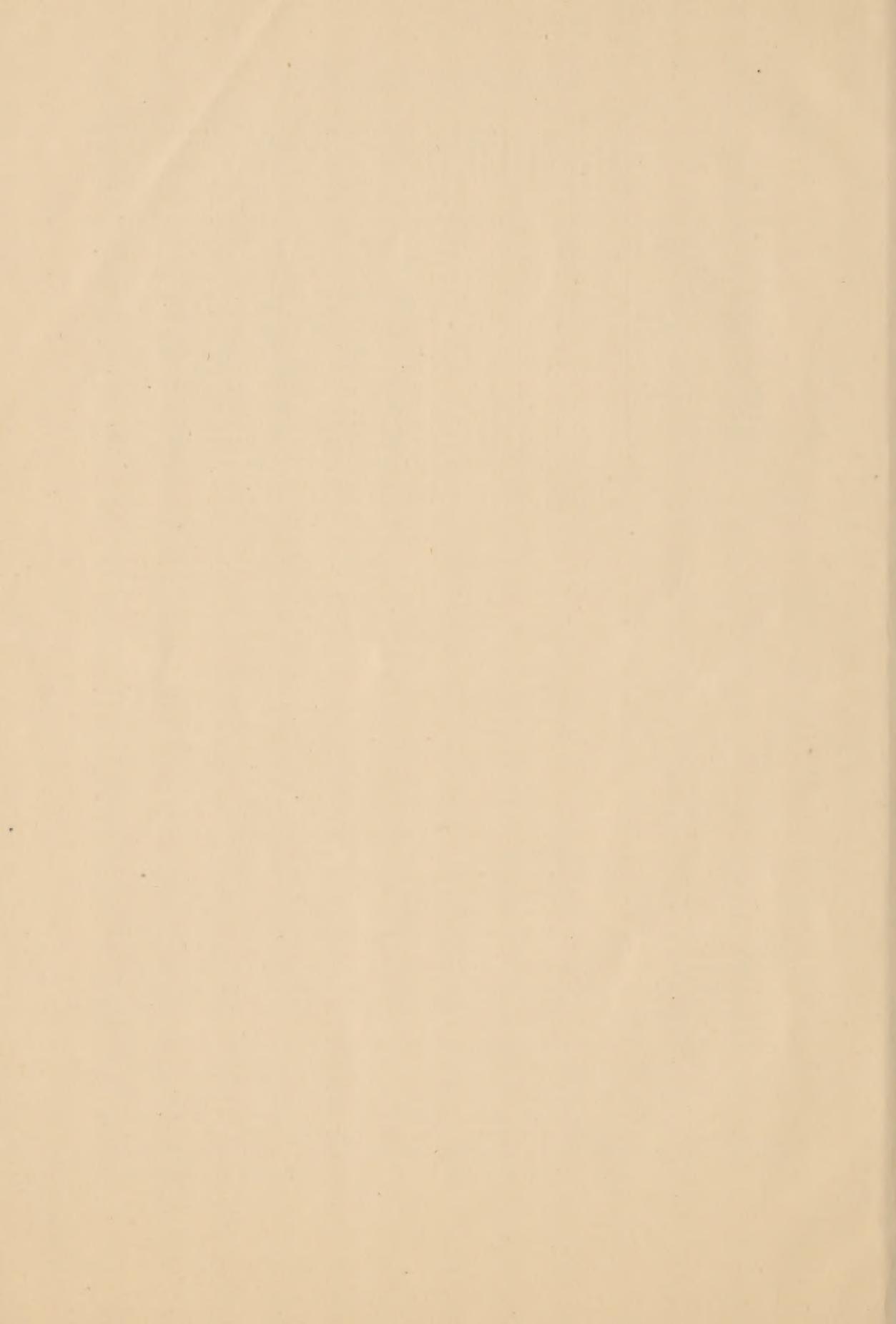
Diseases.	Number of cases.	Cured.	Benefited.	Not benefited.
Diseases of the heart, functional.....	10	9	...	1
" " " " organic.....	49	...	42	7
Rush of blood to the head.....	28	10	16	2
Recurring hemorrhage from nose.....	2	2	...	...
Defective capillary circulation.....	7	7	...	...
Paralysis of all forms.....	25	7	15	3
Tabes dorsalis.....	3	...	2	1
Muscular atrophy (partial).....	12	2	8	2
Chorea.....	3	3	...	...
Writer's cramp.....	1	1	...	...
Neuralgia.....	12	6	5	1
Nervous exhaustion.....	64	10	41	13
Constipation.....	43	20	16	7
Dyspepsia.....	36	12	22	2
Pulmonary catarrh.....	13	4	8	1
" consumption.....	14	...	9	5
Emphysema.....	11	...	11	...
Scrofula.....	3	2	1	...
Debility with anaemia.....	67	9	52	6
Chlorosis.....	128	44	77	7
Rheumatism.....	48	14	31	3
Disordered menstruation.....	8	2	4	2
Uterine displacements.....	14	3	9	2
Spermatorrhœa.....	13	8	3	2
Spinal curvatures.....	62	20	33	9
Contracted joints.....	11	2	8	1
Chicken-breast.....	30	7	23	...
Total.....	717	204	436	77

One of the most important and successful institutions for carrying on this mode of treatment outside of Sweden is that of which Professor Axel Sigfrid Ulrich, M.D., is director, in the city of Bremen. Professor Ulrich is a man of acknowledged ability, as witnessed by the honors which he has received, being a Knight of the Swedish Order of Wasa, Member of the Medical Society of Stockholm, and corresponding member of the Royal Society of Medicine and the Natural Sciences of Brussels, of the Medico-Chirurgical Academy of Barcelona, of the medical societies of Paris, Antwerp, Athens, etc.

I append a summary of the twenty-third annual report of his institution for the year ending July 1, 1879:

Diseases.	Received.	Cured.	Greatly improved.	Improved.	Unimproved.	Irregular in attendance.	Still under treatment.
Anomalies of innervation, —disturbances of nervous activity (chorea, etc.).....	2	...	...	2	...	...	...
Neuralgia.....	3	...	...	1	1	1	1
Nervous debility.....	5	1	1	1	...	1	1
Disturbances of the circulation,—plethora, rush of blood to the head, menstrual disorders.....	3	1	2	...	...	...	...
Constitutional affections, —scrofulous diathesis.....	7	2	3	1	1	...	...
Local thoracic affections, —feeble respiration.....	2	1	1	...	...	...	...
Abdominal affections,— constipation, cardialgia, dyspepsia.....	10	6	3	1	...	...	...
Spinal curvatures.....	59	23	17	14	...	...	5
Rheumatism.....	8	7	1	...	...	...	...
Paralysis.....	5	...	5	...	...	...	...
Joint-diseases	2	...	2	...	...	...	...
General debility.....	6	5	1	...	...	...	...
Total.....	112	46	36	20	2	2	6

During the same period the following cases were successfully treated by massage alone: sprained ankle, 6; sprained knee, 2; sprained wrist, 4; sprained fingers, 3; tendo-vaginitis of foot, 2; chronic synovitis, 2. The average number of sittings in the cases of sprain was between five and six. This, I am aware, will scarcely seem credible to those who are accustomed to put a sprained ankle or wrist into splints, starch, or plaster, and see it drag along for weary months before it again becomes a useful member. With the immediate, persistent, and frequent use of this means, however, few sprains will disable the sufferer for more than three or four days, and many will be entirely relieved at a single sitting if it follows the accident within an hour or two.



THE PHILADELPHIA SANITARIUM,

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Assistants, { Mr. Karl Unionius, Pupil of the Royal Gymnastic Central Institute of Stockholm.

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